

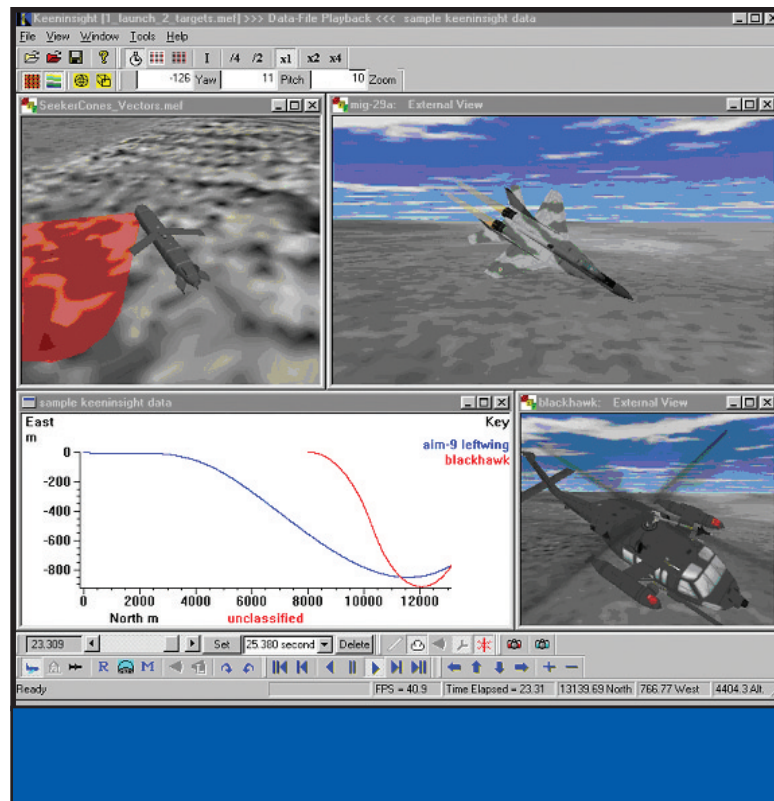


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Science and Technology for Tomorrow's Aerospace Forces

Success Story

WINDOWS-BASED APPLICATION BRINGS 3-D VISUALIZATION OF MUNITIONS TO DESKTOP PCs



The three-dimensional (3-D) visualization analyzer, known as KeenInsight™, successfully brought 3-D visualization to desktop Window personal computers (PCs). KeenInsight™ proved that creating flexible munition in-flight visualization need not be complicated or take much time. KeenInsight™ creates realistic in-flight visualizations using current PC graphics hardware.



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Accomplishment

FAAC, Inc., recently delivered a novel 3-D visualization analyzer called KeenInsight™ to the Munitions Directorate under an ongoing Phase II Small Business Innovation Research effort. FAAC, Inc., also successfully transitioned this graphics technology to the commercial vehicle driver-training simulator markets for the Department of Defense as well as the private sector.

FAAC personnel incorporated the PC graphics technology into the simulators that were delivered as part of the United States Marine Corps Medium Tactical Vehicle Replacement-Training System, Operator Driver Simulator. The PC graphics-based simulators provide low life-cycle costs and easily maintainable systems.

In addition, FAAC sold simulators using the same PC graphics technology to the private sector. The company is also integrating the PC graphics technology into the multi-spectral man-in-the-loop cockpit simulator developed for the Guided Weapon Evaluation Facility at Eglin Air Force Base.

Background

FAAC, Inc., designed KeenInsight™ to give the creators of munition in-flight simulations at the directorate's Guidance Simulation Branch the ability to quickly create 3-D visualizations on their desktop PCs. This application proves 3-D visualization is useful for three phases of the in-flight simulation process: (1) test/debug, (2) analysis, and (3) presentation. The directorate actually used KeenInsight™ to support the test/debug phase of this project during the evaluation period.

KeenInsight™ uses information produced off-line (by engineering simulations or other suitable sources) to provide a graphical interactive depiction of real-world engagements involving 3-D entities representing launchers, weapons, and targets. KeenInsight™ operates on a PC running a Windows operating system (Windows 95/98, NT 4.0, and 2000) and is easy to use.

KeenInsight™ is a valuable tool in the development and analysis of future weapon systems, and the cost savings are immense since KeenInsight™ is freeware for the US Government. Interested agencies may contact Michael Vanden-Heuvel at (850) 882-8195 IC 3214 or email: vandenm@eglin.af.mil. Individuals outside the US Government are encouraged to contact FAAC, Inc., directly for shareware versions.

Additional information

To receive more information about this or other activities in the Air Force Research Laboratory, contact TECH CONNECT, AFRL/XPTT, (800) 203-6451 and you will be directed to the appropriate laboratory expert. (01-MN-05)